entire year while most of the centrals in the first regime are limited to a 6-month processing period.[30]

Vegetation

Most of Negros originally was covered with forests. Today about 66 per cent of the land surface of the Philippines is still forested.[31] Older residents of Barrio Bonbonon (Siaton) remember when the forests, which then abounded with deer, covered large areas of Bondo. Today the typical tree of this grassy plateau is the stubby talongon (Ginelina philippensis Cham.) The forests were once nearer to Caticugan where rattan could be gathered without long walks to the mountains. The western and eastern plains of Negros also were once forested. As the population of the island increased the most desirable land for cultivation was cleared of trees and planted with rice, corn, sugar cane and other crops.

Approximately 50 per cent of Negros' primary forests have been alienated by the people in their centuries of

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[30] The average monthly precipitation (in inches) for Hacienda Bilbao, Manapla, located in the third precipitation regime, for a 19-year period, is: January (7.9); February (4.8); March (4.8); April (3.); May (7.1); June (6.3); July (7.3); August (6.1); September (6.9); October (11.9); November (14.6); and December (9.2). Total annual precipitation: 90.0 inches. Wernstedt, op. cit., p.36.

[31] Reginald G. Hainsworth and Raymont T. Moyer, Agricultural Geography of the Philippine Islands: A Graphic Survey. Washington, D.C., United States Department of Agriculture, Office of Foreign Agricultural Relations, December, 1945, p.12.

assault on the land. Of the land alienated in Negros, which represents either open or agricultural land, only 80 per cent is now cultivated. The remainder of this land is idle, in pasture, or covered with various grasses, principally the coarse cogons (Imperata exaltata) or the wild cane (Saccharum spontaneum), the latter called tigbao in the Visayas and talahib in Tagalog. 137 311

The commercial forests of Negros represent some of the best timber lands in the Philippines (See Plate IX.)[2] Covering about 38 per cent of the island, nearly 70 per cent of the commercial forests are of the Dipterocarpaceae family, large trees usually more than 100 feet in height.[32] 137 313

The Insular Lumber Company located at Fabrica (Negros Occidental) with a daily output of 125,000 board-feet is the world's largest hardwood lumber mill. Other lumber mills are located at Victorias, Himamaylan, Cauayan, San Carlos, Tanjay and Tolong.[33] These mills 313

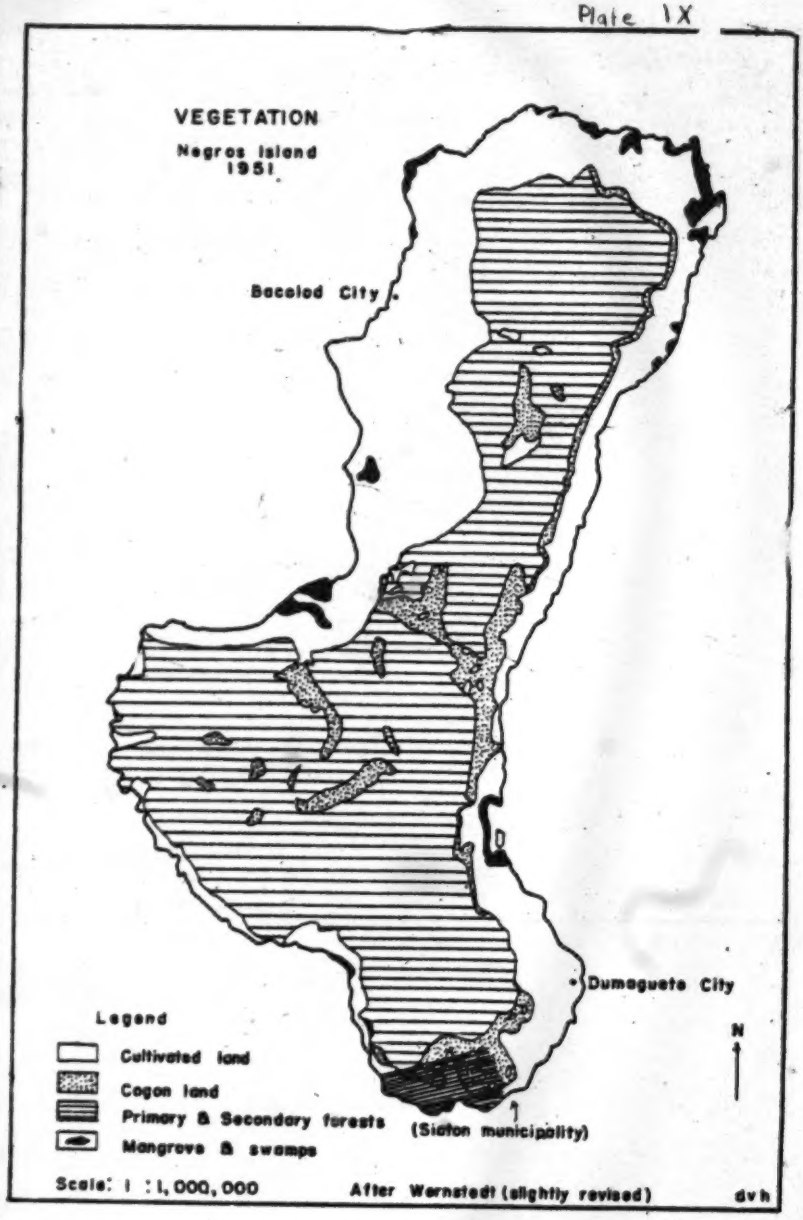
[32] Florencio Tamesis and Luis Aguilar, Important Commercial Timbers of the Philippines: Their Properties and Uses. Popular Bulletin No. 32. Manila, Department of Agriculture and Natural Resources, Bureau of Printing, 1951, p.15. While there are more than 3,000 arborescent species in the Philippines, 75 per cent of the standing timber belongs to the lauan family (Dipterocarpaceae).

[33] M. M. Alicante and others, Soil Survey of Negros Occidental Province, Philippines. Soil Report No. 14. Manila, Department of Agriculture and Natural Resources, Bureau of Printing, 1951, p.13.

2 [See p.59, cat. 137 --ANALYST]

20: Hart E-5 (1951) 1954 OA1 Philippines
Central Bisayan OA14

Plate IX



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have a daily output ranging from 20,000 to several thousand board-feet daily. There were six saw mills in Tolong in 1951; recently a plywood factory and another large saw mill (the latter owned by the American Rubber Company) have been established in this municipality. Most saw mills in Tolong are located in the mountains; the cut timber is hauled out by trucks during the dry season.

The trees most frequently cut for these mills are white lauan (Pentacme contorta Merr. & Rolfe), red lauan (Shorea negrosensis Foxw.) and tangile (Shorea polysperma Merr.) The latter two trees are known as Philippine red mahoganies in the timber trade, although they are not true mahoganies.[34] The lumber cut in Tolong is trucked to Dumaguete or shipped in small boats to Cebu, Bacolod and Iloilo. Just prior to my visit to Tolong one boat-load of lumber had been sent to Japan. While Negros has abundant timber resources, the barriofolk use only small quantities in building their houses. Inadequate development of Negros' timber resources, high prices, and poor transportation facilities are a few reasons why so little lumber is used by the rural people.

Brush, shrubs, and immature forest growth compose the secondary forest areas of Negros, resulting from the destruction of the primary or tropical rain forest by caingin or lumbering activities. The secondary forests are, for the most part, in the municipalities of Cadiz,

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[34] Tamesis and Aguilar, op. cit., pp. 45, 47, and 49.

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Cauayan, Kabankalan, Himamaylan, Bais, and Tolong. Negros does not have the expansive grasslands (cogonales) that occupy about 20 per cent of the land surface of the Philippines. Most of the island's cogonales are found in Negros Oriental, fringing the forested edges of the Central Mountain range.

> The [cogon] grass grows from a few feet to as much as 8 feet high and forms a very thick cover. A large part of these grasslands are 'man-made' and result from shifting cultivation, or caingin culture.[35]

Wernstedt states: "The two important vegetation associations, the secondary forests and the grasslands, are the real problem areas of Negros. They represent regions of abuse or negative occupance."[36] Much of Bondo in Siaton is covered with cogon and other grasses that are burned during the dry season so the cattle may forage on the new green shoots. Some cogonales are found in the rolling uplands east and west of the narrow Siaton valley south of Sitio Dolog.

The majority of Negros' swamps and mangroves are found in the northern part of the island. Bordering the mangroves are nipa palm areas whose fronds are used extensively for roofing. "The nipa palm does not thrive on either fresh or salt water, but requires an in-between condition. Often it borders tidal streams, extending inland as far

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[35]Hainsworth and Moyer, op. cit., p. 12.

[36]Wernstedt, op. cit., p. 48.

as the tidal effect is felt."[37] The mangrove-nipa area between the Siaton and Canaway Rivers is the source of most of the nipa used to thatch houses in this vicinity. 137 [314]

Soils

Two parent materials have played major roles in the origin and development of present day Negros' soils. First, the volcanic parent materials from the central mountains and, second, the limestone materials derived from coral depositions during periods of Negros' submergence. There are three major soil groups in Negros, based on factors of relief and the nature of the parent materials.[38] 134

The three major soil groups of Negros are (1) flat lowland soils; (2) rolling uplands soils (subdivided into those of sedimentary and igneous derivation); and (3) hill and mountain soils. The most important agricultural soil group is the flat lowland soils. These are soils of recent alluvial deposition which are usually found on the level or slightly undulating lands of the coastal plains--the plains of western Negros, San Carlos, Bais, and the many small plains of the eastern and western coasts. The flat lowland soils are the best agricultural soils in Negros, covering about one-fifth of the island, and are

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[37] Wernstedt, op. cit., p.47.

[38] The soils of Negros are inadequately studied. The two major studies are M. M. Alicante and others, op. cit., and Alfredo Barrera and others, "Soil Survey of Negros Oriental Province, Philippines." Manila, Bureau of Soil Conservation, 1950. Typescript.

The northwest part of Caticugan is still quite boggy. Along the base of the bluff runs a shallow stream which eventually joins the Caticugan Creek. To the west is the low bluff of Caticugan; Lucas Ege, founder of Caticugan, built canals here to drain the many springs. The hills are covered with bamboo groves, shrubs, and some coconuts. Taking the path up the bluff one emerges at Upper Naga. To the north a hill undulates down to a grassy shelf on which stand the houses of Upper Naga. Following the crest of the bluff southward one comes to the main settlement of Naga where a small bamboo school is located. The nearest house has several jars of bright-colored candies in the window sill to attract the few pennies of the children. To the west is Mantuyop River, a rockier and shallower stream than the Siaton River. Across the Mantuyop River the hills are covered with low-growing trees and shrubs.

If the opposite direction had been taken on leaving Caticugan one would have ascended the small plateau of Dangola, rocky, grass-covered and with scattered fields. The southwestern part of Dangola is covered with grass and large wallow holes where carabaos roll happily in thick mud. To the northwest is the level riverine plain of Sandolot with fenced fields and residences. Descending toward the east from Dangola one arrives at Talo-ot, separated from Caticugan

GUHANG

Of all the "cash crops" of Caticugan guhang is probably the major source of cash income for the largest number of families. The fermented sap of the buri palm (Corypha elata Roxb.) is the source of guhang. Though much as been written about making tuba (from the sap of the coconut tree) there are fewer accounts of making guhang. One poblacion wit said the name of the drink came from the desire, after excessive drinking, "to go hang yourself." Brown states:

> This [the buri] is the largest and most stately palm found in the Philippines. Its straight trunk attains a diameter of one meter and height of 20 meters...The plant grows 25 to 30 or more years, during which time large quantities of starch collect in the trunk. It then flowers once and dies...[54]

Besides being the source of guhang the buri has many other uses in the Philippines. The palm is the source of alcohol, vinegar and sugar, all made from the sap while the trunk yields large quantities of starch. The edible kernels of the fruit are used to make sweetmeats. The immature unopened frond is utilized in many parts of the archipelago to manufacture mats, sails, bags, while the buri's petiole yields the so-called Buntal fiber from which the famous hats of Baliuag and Lucban are woven.[55] Barriofolk in Caticugan do not make sugar from the buri's sap, although flour was extracted from the

[54] Brown, op. cit., I, p. 284.

[55] Brown, op. cit., I, pp. 286-95.

the sap begins to flow or the task abandoned as hopeless. 273 245
A deep hole may be bored into the "eye" to increase the diminishing flow of sap.

As one travels up the Siaton River valley the buri 184 245 palms decrease; at Dolog they disappear. The sap of the [137] ● ediok palm (Cabo Negros: Arenga pinnata Wurmb (Miller)) is [824] used to make a mildly alcoholic drink called habyob. The ediok produces large bunches of dates that hang on slender stalks from the top of the palm. A stalk is selected and then violently shaken and hit with a stick each morning until it flowers. Then the stalk's tip is cut and a bamboo container is attached at the end to collect the sap. The ediok's sap flows about the same length of time as the buri; tan-bark is also added to habyob for the same reason it is [824] put in guhang.

MINOR SINGLE CROPS OF CATICUGAN

Spencer lists twenty-one different cropping combina- 241 311 tions for the Philippines. Of these combinations six are chiefly lowland, eight chiefly upland, and seven are combined upland-lowland crop combinations.[59] The intercropping type typical of Caticugan is the "corn and minor crop" combination listed by Spencer under the combined upland-lowland category. The various cropping combinations in Caticugan are: (1) corn-peanuts; (2) corn-camotes; (3) corn-balatong [824] (Cow peas: Vigna sinensis Linn.); (4) corn-balatong-cassava;

[59] Spencer, op. cit., pp. 11-12.

Calendars with pictures of the Holy Family or religious scenes are common in the dwellings; these calendars are distributed free by Dumaguete Chinese merchants. Photographs are fairly typical--pictures of weddings, funerals, relatives, school graduations, etc. A few houses had an aparado, a chest cupboard, often with glass doors.

Every Caticugan dwelling had a family or domestic altar. In some cases the altar was merely a religious picture or a cheap plaster figure of a saint placed on a small shelf or, in one case, on the top of a trunk. A few altars were quite elaborate with two or three religious figures and pictures, vases (often beer bottles) for flowers, and paper cut-out or tinfoil decorations. Some altars have a small tin container filled with coconut oil with a wick made from a twist of kapok or native cotton.[5] The most elaborate altar in Caticugan belonged to two unmarried brothers who lived together; both young men were considered to be bayutes, highly feminine-acting men.

Little care is given most altars; they are often dirty and disarranged. During a novena or the fiesta, however, the altars are cleaned, rearranged and fresh flowers put in the vases.

4 (Continued) and several pages of current events. Personal communication to the writer from Mr. B. Canete, Circulation Manager, Liwayway Publications, Inc., Manila, April 3, 1954. Typescript.

5 There are two varieties of tree cotton in Caticugan, gapas gamay and gapas dako; both were identified as Gossypium brasiliense Macf. Also see Brown, op. cit., II, pp. 401-3.